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  FILE 'MEDLINE, EMBASE, BIOSIS' ENTERED AT 17:57:05 ON 26 MAY 2005
L1         36127 S CHISHOLM?/AU OR KRUMMEN?/AU OR CROWLEY?/AU OR MENG?/AU
L2            21 S GFP (P) DHFR
L3          4071 S IRES OR "RIBOSOME ENTRY SITE"
L4           114 S GFP (2W) "S65T"
L5           809 S INTRON AND ("FUSION GENE" OR "FUSION CONSTRUCT" OR "FUSION PR
L6           550 S PROMOTER AND L3
L7             0 S L6 AND L1
L8             0 S L6 AND L2
L9             0 S L2 AND L1
L10           66 S AMPLIFIABLE (S) MARKER
L11            0 S L10 AND GFP
L12            0 S L10 AND L1
L13            1 S L3 AND L5
L14       449713 S VECTOR OR PLASMID
L15         6485 S DICISTRONIC OR BICISTRONIC OR POLYCISTRONIC
L16         1979 S L14 AND L15
L17           62 S DHFR AND L16
L18            3 S L17 AND GFP
L19            1 DUP REM L18 (2 DUPLICATES REMOVED)
L20            3 S L10 AND FLUORESCEN?
L21            2 DUP REM L20 (1 DUPLICATE REMOVED)
L22        14612 S GLUTAMINE (2W) SYNTH?
L23           25 S L22 AND GFP
L24            7 S L23 NOT PY>=2001
L25            3 DUP REM L24 (4 DUPLICATES REMOVED)

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L25 ANSWER 1 OF 3 MEDLINE on STN DUPLICATE 1
ACCESSION NUMBER: 2001025950 MEDLINE
DOCUMENT NUMBER: PubMed ID: 10972880
TITLE: Development of clover yellow vein virus as an efficient, stable gene-expression system for legume species.
AUTHOR: Masuta C; Yamana T; Tacahashi Y; Uyeda I; Sato M; Ueda S; Matsumura T
CORPORATE SOURCE: Pathogen-Plant Interactions Group, Graduate School of Agriculture, Hokkaido University, Sapporo 060-8589, Japan.
SOURCE: Plant journal : for cell and molecular biology, (2000 Aug) 23 (4) 539-46.
Journal code: 9207397. ISSN: 0960-7412.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200011
ENTRY DATE: Entered STN: 20010322
Last Updated on STN: 20010322
Entered Medline: 20001114

AB A highly infectious cDNA clone of clover yellow vein virus (pClYVV) was tested as a viral vector, especially for legume species. The genes for green fluorescent protein (**GFP**) and soybean **glutamine synthetase** (GS) were inserted between the genes for P1 and HC-Pro on pClYVV to create three recombinant plasmids: pClYVV-**GFP**, pClYVV-**GFP**-GS, and pClYVV-**GFP**:GS. In the former two constructs all the junctions between the inserted proteins contained the sequences of protease cleavage recognition sites, whereas the third construct expressed a fusion of **GFP** and GS. Western blot analyses showed that **GFP** and GS appeared to have been precisely excised from the viral polyprotein with the viral proteases (P1 and NIa). Under UV irradiation, green fluorescence was detected in infected broad bean, kidney bean, and soybean plants. The stability of the constructs in the symptomatic tissues was confirmed by RT-PCR and Western blot analyses. The plants expressing GS together with **GFP** became tolerant to the herbicide glufosinate, and flowered early. As the GS gene, one of the nodulin genes for nitrogen fixation, is expressed in legume species, this system will be useful for examining the function of genes important to legume plants.

L25 ANSWER 2 OF 3 MEDLINE on STN DUPLICATE 2
ACCESSION NUMBER: 2001081488 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11069692
TITLE: Post-translational regulation of cytosolic **glutamine synthetase** by reversible phosphorylation and 14-3-3 protein interaction.
AUTHOR: Finnemann J; Schjoerring J K
CORPORATE SOURCE: Plant Nutrition Laboratory, Department of Agricultural Sciences, The Royal Veterinary and Agricultural University, Thorvaldsensvej 40, DK-1871 Frederiksberg C, Copenhagen, Denmark.. jfi@kvl.dk
SOURCE: Plant journal : for cell and molecular biology, (2000 Oct) 24 (2) 171-81.
Journal code: 9207397. ISSN: 0960-7412.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
OTHER SOURCE: GENBANK-AF111812; GENBANK-X72751; GENBANK-X76736; GENBANK-X82997
ENTRY MONTH: 200101
ENTRY DATE: Entered STN: 20010322
Last Updated on STN: 20010322
Entered Medline: 20010105

AB Regulation of the cytosolic isozyme of **glutamine synthetase** (GS(1); EC 6.3.1.2) was studied in leaves of Brassica napus L. Expression and immunodetection studies showed that GS(1) was the only active GS isozyme in senescing leaves. By use of [gamma-(32)P]ATP

followed by immunodetection, it was shown that GS(1) is a phospho-protein. GS(1) is regulated post-translationally by reversible phosphorylation catalysed by protein kinases and microcystin-sensitive serine/threonine protein phosphatases. Dephosphorylated GS(1) is much more susceptible to degradation than the phosphorylated form. The phosphorylation status of GS(1) changes during light/dark transitions and depends in vitro on the ATP/AMP ratio. Phosphorylated GS(1) interacts with 14-3-3 proteins as verified by two different methods: a His-tag 14-3-3 protein column affinity method combined with immunodetection, and a far-Western method with overlay of 14-3-3-**GFP**. The degree of interaction with 14-3-3-proteins could be modified in vitro by decreasing or increasing the phosphorylation status of GS(1). Thus, the results demonstrate that 14-3-3 protein is an activator molecule of cytosolic GS and provide the first evidence of a protein involved in the activation of plant cytosolic GS. The role of post-translational regulation of cytosolic GS and interactions between phosphorylated cytosolic GS and 14-3-3 proteins in senescing leaves is discussed in relation to nitrogen remobilization.

L25 ANSWER 3 OF 3 MEDLINE on STN DUPLICATE 3
ACCESSION NUMBER: 1999452929 MEDLINE
DOCUMENT NUMBER: PubMed ID: 10521424
TITLE: Cloning and characterization of AOEB166, a novel mammalian antioxidant enzyme of the peroxiredoxin family.
AUTHOR: Knoops B; Clippe A; Bogard C; Arsalane K; Wattiez R; Hermans C; Duconseille E; Falmagne P; Bernard A
CORPORATE SOURCE: Laboratory of Cell Biology, Department of Biology, Universite Catholique de Louvain, 1348 Louvain-la-Neuve, Belgium.. knoops@bani.ucl.ac.be
SOURCE: Journal of biological chemistry, (1999 Oct 22) 274 (43) 30451-8.
Journal code: 2985121R. ISSN: 0021-9258.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
OTHER SOURCE: GENBANK-AF110731; GENBANK-AF110732
ENTRY MONTH: 199911
ENTRY DATE: Entered STN: 20000111
Last Updated on STN: 20000111
Entered Medline: 19991123

AB Using two-dimensional electrophoresis, we have recently identified in human bronchoalveolar lavage fluid a novel protein, termed B166, with a molecular mass of 17 kDa. Here, we report the cloning of human and rat cDNAs encoding B166, which has been renamed AOEB166 for antioxidant enzyme B166. Indeed, the deduced amino acid sequence reveals that AOEB166 represents a new mammalian subfamily of AhpC/TSA peroxiredoxin antioxidant enzymes. Human AOEB166 shares 63% similarity with Escherichia coli AhpC22 alkyl hydroperoxide reductase and 66% similarity with a recently identified Saccharomyces cerevisiae alkyl hydroperoxide reductase/thioredoxin peroxidase. Moreover, recombinant AOEB166 expressed in E. coli exhibits a peroxidase activity, and an antioxidant activity comparable with that of catalase was demonstrated with the **glutamine synthetase** protection assay against dithiothreitol/Fe3+/O(2) oxidation. The analysis of AOEB166 mRNA distribution in 30 different human tissues and in 10 cell lines shows that the gene is widely expressed in the body. Of interest, the analysis of N- and C-terminal domains of both human and rat AOEB166 reveals amino acid sequences presenting features of mitochondrial and peroxisomal targeting sequences. Furthermore, human AOEB166 expressed as a fusion protein with **GFP** in HepG2 cell line is sorted to these organelles. Finally, acute inflammation induced in rat lung by lipopolysaccharide is associated with an increase of AOEB166 mRNA levels in lung, suggesting a protective role for AOEB166 in oxidative and inflammatory processes.

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